

ABSTRACT

The invention provides novel polyethylene terephthalate resin compositions including: 1 to 30 wt% of an impact modifier component, and 99 to 70 wt% of a polyethylene terephthalate resin component. The impact modifier component includes graph copolymer particles having a core portion at least partially grafted to a shell portion. The core portion is obtained by enlarging the particle size of a rubber particle having an average particle size of at most 0.1 μm , and includes a butadiene (co)polymer obtained by polymerizing 30 to 100 wt% of butadiene, 70 to 0 wt% of an aromatic vinyl copolymer or an aromatic (meth)acrylate, 10 to 0 wt% of a vinyl monomer copolymerizable therewith, and 5 to 0 wt% of a cross-linking agent. The shell portion is obtained by polymerizing: 30 to 100 wt% of an aromatic vinyl compound, 70 to 0 wt% of an alkyl (meth)acrylate, and 0 to 20 wt% of a vinyl monomer. In one embodiment, the concentration of rubber in the core portion ranges from 20 to 85 weight percent. Here, at least one of the following must also exist:

1. at least a portion of the graph copolymer particles has a void-containing rubber portion,
2. the impact modifier component includes at least one of the following:
 - a. at least 1 weight percent of a processing oil component,
 - b. at least 2 weight percent of a processing aid component, or
 - c. at least two different populations of polymeric particles.